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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
LESNIEWSKI, VICTOR D	
ART UNIT	**PAPER NUMBER**
2155	

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/840,588	WANG, GANG	
	Examiner	Art Unit	
	Victor Lesniewski	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25 and 28-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25 and 28-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

S.O.O.

DETAILED ACTION

1. The amendment filed 3/7/2005 has been placed of record in the file.

2. Claims 1, 3, 6, 7, 13, 15-21, 28, and 30 have been amended.

3. Claims 26 and 27 have been canceled.

4. The objections to claims 6, 26, and 27 are withdrawn in view of the amendment.

5. The rejection of claims 26 and 27 under 35 U.S.C. 112 are withdrawn in view of the amendment.

6. The rejection of claims 16-25 and 28-33 under 35 U.S.C. 101 are withdrawn in view of the amendment.

7. Claims 34 and 35 have been added.

8. Claims 1-25 and 28-35 are now pending.

9. The applicant's arguments with respect to claims 1-25 and 28-35 have been considered but are moot in view of the following new grounds of rejection.

Response to Amendment

10. Claims 1, 6, 19, and 28 have been amended to show that the system responds to an ad-hoc query. This amendment proves a change in scope to independent claims 1, 6, 19, and 28 as these claims now explicitly state a schema for responding to one or more ad-hoc queries. However, none of the amended claims show a patentable distinction over the prior art as evidenced by the following new grounds of rejection.

11. Claim 16 has been amended to show specifics of a base class and derived classes. This amendment proves a change in scope to independent claim 16 as the claim now explicitly states

details of the claimed base class which include providing an access point to instances of the derived classes and details of a first derived class stating specifics of a display format attribute and a display name attribute, among other details added to the claim. However, none of the amended claims show a patentable distinction over the prior art as evidenced by the following new grounds of rejection.

Claim Rejections - 35 USC § 112

12. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

13. Claims 1-15, 19-25, and 28-35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

14. Claims 1-15, 19-25, and 28-35 recite the providing of information that satisfies at least one ad-hoc query. The use of ad-hoc queries in the system is seen as new matter that is not supported in the specification. In the remarks the applicant has referred to page 2 of the specification to support the addition to the claims of the ad-hoc query. However, page 2, lines 25-29 do not convey an improvised search term. The statement "The distributed schema also allows the information to be discovered dynamically as the situation on each of the monitored nodes changes" does not seem to support an ad-hoc query, but seems directed to the fact that a

set query can be dynamically updated as the monitored information changes over time. Furthermore, the additional discussion of queries throughout the specification does not support an ad-hoc query, but only a query by WQL that is directed to a specified namespace and runs via preprogrammed or preset WMI functionality.

Claim Rejections - 35 USC § 101

15. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

16. Claims 34 and 35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 34 and 35 recite descriptive material that may or may not be an embodiment of a computer system or embodied on a computer readable medium so as to be executable. It is unclear whether the network management component and the network resource component are merely software modules or whether they are devices that execute a computer readable medium or computer program product. Thus these components do not constitute eligible subject matter for patentability. See MPEP 2106.IV.B.1(a).

Claim Rejections - 35 USC § 102

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

18. Claims 16-18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Reed et al. (U.S. Patent Number 5,862,325), hereinafter referred to as Reed.

19. Reed has disclosed:

- <Claim 16>

  A machine-readable medium having stored thereon a repository data structure for storing data corresponding to a schema for defining relations between objects of a server computing device coupled by means of a network to a management computing device, said repository data structure derived from a compilation of a managed object format language rendering of the schema, said rendering including: a) a base class of type management element from which a plurality of classes are derived and which provides an access point to instances of the derived classes (column 17, lines 5-21); b) a first derived class of the base class having elements with attributes comprising a display format attribute defining a manner for presenting information at one or more client devices which is obtained by an aggregator component on the management computing device via the access point and a display name attribute that identifies the information to be presented at the one or more client devices (column 50, lines 25-46 and column 71, line 59 through column 72, line 21); and c) a second derived class of the base class being an on event class that defines a source and result relationship between at least two objects of the type management element having at least one particular result object being provided for at least one particular source object based on the aggregator component requesting the information via the access point (column 41, line 63 through column 42, line 15).

- <Claim 17>

  The repository data structure stored on the machine-readable medium of claim 16 additionally comprising a third derived class of the base class being an aggregate class that defines elements having a parent and child relation between instances of the management element type object (column 39, line 40 through column 40, line 6).

- <Claim 18>

  The repository data structure stored on the machine-readable medium of claim 16 wherein the first derived class further includes a datatype field and a data field and wherein one type of datatype causes the data in the data field to be interpreted as a SQL statement (column 71, line 59 through column 72, line 21).

Since all the limitations of the invention as set forth in claims 16-18 were disclosed by Reed, claims 16-18 are rejected.

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

21. Claims 1-15, 19-25, and 28-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonnell et al. (U.S. Patent Number 5,655,081), hereinafter referred to as Bonnell, in view of Reed.

22. Bonnell disclosed a system for monitoring and managing computer resources and applications across a network using at least one manager software system and a plurality of agent software systems running on server computers. In an analogous art, Reed disclosed a system for transferring metadata between a provider and a consumer computer that results in intelligent processing of information by the consumer computer and combined control by the provider and consumer of the types of content of information subsequently transferred.

23. Concerning claims 1, 6, 19, 28, 34, and 35, Bonnell did not explicitly state providing information that satisfies at least one ad-hoc query. However Reed does state this feature as he discloses in detail the processing of query result sets for external data queries. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Bonnell by adding the ability to provide information that satisfies at least one ad-hoc query as provided by Reed. Here the combination satisfies the need for a solution to the problem of inefficient management of events occurring within a network. See Bonnell, column 6, lines 15-23.

24. Thereby, the combination of Bonnell and Reed discloses:

- <Claim 1>

  Apparatus for monitoring multiple computing devices coupled to a network comprising: a) a management computing device having software for monitoring multiple monitored computing devices that are coupled to a network, said management computing device including an aggregator component that accumulates information regarding the multiple monitored computing devices (Bonnell, figure 1, item 10); b) a video display for displaying a result from the aggregator component (Bonnell, column 2, lines 43-51); c) a

plurality of monitored computing devices coupled to the management computing device by means of the network to enable information regarding the monitored computing devices to be determined by the aggregator component of said management computing device (Bonnell, figure 1, item 14 and column 1, lines 54-57); and d) each of said plurality of monitored computing devices implementing a schema for responding to one or more ad-hoc queries by the aggregator component by providing an access point to information about the monitored computing devices that satisfies the one or more ad-hoc queries (Bonnell, figure 3 and column 5, lines 16-23 and Reed, column 71, lines 40-58).

- <Claim 2>

  The apparatus of claim l additionally comprising one or more client computing devices coupled to the management computing device by means of the network and wherein the video display is coupled to one of the client computing devices (Bonnell, column 2, lines 2-5).

- <Claim 3>

  The apparatus of claim 1 wherein the schema includes a class hierarchy of managed elements and wherein an access point instance is created for each monitored computing device to provide a means of monitoring managed elements of an associated monitored computing device (Bonnell, column 4, lines 30-56 and column 3, lines 59-63).

- <Claim 4>

  The apparatus of claim 3 wherein a web element class is defined that is instantiated to include web elements contained within a monitored computing device (Bonnell, column 4, lines 42-56).

- <Claim 5>

  The apparatus of claim 1 wherein each of the monitored computing devices includes a data repository and wherein the schema defines a manner in which data is entered into the data repository when the monitored computing device is added to the network (Bonnell, column 9, line 61 through column 10, line 10).

- <Claim 6>

  A method for monitoring and configuring multiple computing devices coupled to a network comprising: a) providing a management computing device having software for monitoring multiple other computing devices, said management computing device including an aggregator component that accumulates information regarding the multiple other computing devices (Bonnell, figure 1, item 10); b) connecting a plurality of other computing devices to the management computing device by means of a network to enable the information regarding the other computing devices to be determined by the aggregator component of said management computing device (Bonnell, figure 1, item 14 and column 1, lines 54-57); c) accessing results provided by the aggregator and updating an output for conveying information about the multiple other computing devices based on a result from the aggregator component (Bonnell, column 2, lines 43-51); and d) maintaining a data repository on each of the other computing devices that is based on a monitoring and control schema for providing information that satisfies at least one ad-hoc query to the aggregator component (Bonnell, column 9, line 61 through column 10, line 10 and Reed, column 71, lines 40-58).

- <Claim 7>

  The method of claim 6 wherein the monitoring and control schema defines a class hierarchy of elements that depend from a base class and include the access point for examining elements for a given one of said other computing devices (Bonnell, column 4, lines 30-56 and figure 18).

- <Claim 8>

  The method of claim 7 wherein the monitoring and control schema defines elements that are associated with other elements by means of a containment association (Bonnell, column 11, lines 2-9).

- <Claim 9>

  The method of claim 7 wherein the monitoring and control schema defines elements that are related to each other by events transmitted to the aggregator component by a user interface (Bonnell, column 13, line 63 through column 14, line 12).

- <Claim 10>

  The method of claim 9 wherein the events are initiated by a client computing device coupled to the management computing device by means of a network connection (Bonnell, column 13, lines 7-9).

- <Claim 11>

  The method of claim 6 wherein the aggregator component accesses, in sequence, multiple other computing devices coupled to the network (Bonnell, column 14, lines 1-7).

- <Claim 12>

  The method of claim 6 wherein the monitoring and control schema is a class hierarchy of elements that depend from a base class and wherein the aggregator component associates one or more result elements with an event, and for each of said one or more result elements, the aggregator determines if the result element has an aggregate association with other elements (Bonnell, column 11, lines 23-41 and 56-67).

- <Claim 13>

  The method of claim 12 wherein the aggregator component traverses multiple layers of elements to determine aggregate associations between elements (Bonnell, column 11, lines 23-26).

- <Claim 14>

  The method of claim 13 wherein for each element the aggregator component obtains data from a data property for that element and uses the data format property of said element to format data from the data property (Bonnell, column 4, lines 4-29).

- <Claim 15>

  The method of claim 14 wherein the data property is a SQL string which the management component executes for an associated other computing device on the network (Bonnell, column 4, lines 13-17).

- <Claim 19>

  A machine readable medium including instructions stored thereon, which when executed by at least one processing system, causes the at least one processing system to perform a method for monitoring multiple computing devices coupled to a network, said medium

including instructions for: a) providing an aggregator component on a management computing device that accumulates information regarding a multiple number of other computing devices (Bonnell, figure 1, item 10); b) obtaining the information regarding the other computing devices for use by the aggregator component of said management computing device (Bonnell, figure 1, item 14 and column 1, lines 54-57); c) updating an output for conveying information about the multiple other computing devices based on a result from the aggregator component (Bonnell, column 2, lines 43-51); and d) said obtaining step performed by instructions that access data from a data repository on each of the other computing devices that is based on a monitoring and control schema for providing information that satisfies at least one ad-hoc query to the aggregator component (Bonnell, column 9, line 61 through column 10, line 10 and Reed, column 71, lines 40-58).

- <Claim 20>

  The machine readable medium of claim 19 wherein the monitoring and control schema defines a class hierarchy of elements that depend from a base class which the aggregator component accesses by means of the access point for examining elements for a given one of said other computing devices (Bonnell, column 4, lines 30-56 and figure 18).

- <Claim 21>

  The machine readable medium of claim 20 wherein the monitoring and control schema defines elements that are associated with other elements by means of a containment association (Bonnell, column 11, lines 2-9).

- <Claim 22>

  The machine readable medium of claim 20 wherein the monitoring and control schema defines elements that are related to each other by events transmitted to the aggregator component of the management computing device by means of a user interface component of said management computing device (Bonnell, column 13, line 63 through column 14, line 12).

- <Claim 23>

  The machine readable medium of claim 19 wherein the aggregator component accesses, in sequence, multiple other computing devices coupled to the network (Bonnell, column 14, lines 1-7).

- <Claim 24>

  The machine readable medium of claim 19 wherein the monitoring and control schema is a class hierarchy of elements that depend from a base class and wherein the aggregator component associates one or more result elements with an event, and for each of said one or more result elements, the aggregator determines if the result element has an aggregate association with other elements (Bonnell, column 11, lines 23-41 and 56-67).

- <Claim 25>

  The machine readable medium of claim 19 wherein for each element the aggregator component obtains data from a data property for that element and uses the data format property of said element to format data from the data property (Bonnell, column 4, lines 4-29).

- <Claim 28>

  A machine readable medium including instructions stored thereon, which when executed by at least on processing system, causes the at least one processing system to perform a method for monitoring multiple computing devices coupled to each other by means of a network , said medium including instructions for: a) monitoring multiple computing devices by providing an aggregator component on a management computing device that accumulates information regarding multiple other computing devices (Bonnell, figure 1, item 10); b) obtaining the information regarding the other computing devices for use by the aggregator component of said management computing device (Bonnell, figure 1, item 14 and column 1, lines 54-57); c) generating a visual output for conveying information about the multiple other computing devices based on a result from the aggregator component formatted according to data maintained on a data repository on each of the other computing devices that is based on a monitoring and control schema for providing information that satisfies at least one ad-hoc query to the aggregator component (Bonnell, column 2, lines 43-51 and column 9, line 61 through column 10, line 10 and Reed, column 71, lines 40-58); and d) monitoring inputs from a user interface to enable the management computer to update data stored in the data repository of one or more of said other computer devices (Bonnell, column 2, lines 5-16 and column 13, line 63 through column 14, line 12).

- <Claim 29>

  The machine readable medium of claim 28 wherein each of the other computing devices includes different types of managed elements and wherein instructions implementing the

aggregator component obtains data from a data property for a managed element and uses the data format property of said managed element to format data for presentation on the visual output (Bonnell, column 4, lines 4-29).

- <Claim 30>

  The machine readable medium of claim 28 wherein the monitoring and control schema defines a class hierarchy of managed elements that depend from a base class and include the access point and wherein the medium includes instructions enabling the aggregator to examine elements within the hierarchy for a given one of said other computing devices (Bonnell, column 4, lines 30-56 and figure 18).

- <Claim 31>

  The machine readable medium of claim 30 wherein the monitoring and control schema defines managed elements that are associated with other managed elements by means of a containment association and wherein the instructions that implement the aggregator component examine in a recursive manner managed elements contained within other managed elements (Bonnell, column 11, lines 2-9 and column 14, lines 1-7).

- <Claim 32>

  The machine readable medium of claim 28 wherein the monitoring and control schema stored on the other computing devices defines managed elements that are related to each other by an on event association between managed elements and where an event is initiated at the user interface and evaluated by the aggregator component of said management computing device (Bonnell, column 10, lines 16-38 and column 13, line 63 through column 14, line 12).

- <Claim 33>

  The machine readable medium of claim 28 wherein the monitoring and control schema is a class hierarchy of managed elements that depend from a base class and wherein the aggregator component associates one or more result managed elements with an event, and for each of said one or more result managed elements, the aggregator determines if the result managed element has an aggregate association with other managed elements (Bonnell, column 11, lines 23-41 and 56-67).

- <Claim 34>

  At least one network management component for monitoring at least one network resource component, the at least one network management component comprising: at least one aggregator module that makes at least one ad-hoc query for status information related to the at least one network resource component via at least one access module which is derived from schema implemented by the at least one network resource component (Bonnell, figure 3 and column 5, lines 16-23 and Reed, column 71, lines 40-58).

- <Claim 35>

  At least one network resource component that makes status information available to at least one network management component, the at least one network resource component comprising: at least one status module that obtains the status information for satisfying at least one ad-hoc query from the at least one network management component; and at least one access module derived from schema implemented by the at least one network component that can be referenced by the at least one network management component for

making the at least one ad-hoc query (Bonnell, figure 3 and column 5, lines 16-23 and Reed, column 71, lines 40-58).

Since the combination of Bonnell and Reed discloses all of the above limitations, claims 1-15, 19-25, and 28-35 are rejected.

Conclusion

25. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure.

- Schoening et al. (U.S. Patent Number 6,226,788) disclosed a network management system that includes device mappers that are stored in a hierarchical structure that reflects a functional relationship or family relationship of the devices.
- Lipkin (U.S. Patent Number 6,721,747) disclosed a system for managing information in an information resource system that uses RQL queries.

26. The applicant's amendment necessitated the new grounds of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). The applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor Lesniewski whose telephone number is 571-272-3987. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VL

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Bharat Barot

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PRIMARY EXAMINER